

Response Under 37 CFR 1.116
Expedited Procedure
Examining Group 1775
Application No. 09/831,327
Amendment After Final dated October 19, 2004
Reply to Final Office Action of 09-22-2004
Attorney Docket No. 1217-010737

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

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JL*

1. (Previously Presented) A decorative item comprising:
a basis material of a stainless steel,
a carburized hardened layer extending from a surface of the basis material to an arbitrary depth wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbide is not formed; and
at least one hard coating disposed on a surface of the carburized hardened layer of the basis material,
wherein the hard coating has a surface hardness greater than that of the carburized layer.

2-3. (Canceled)

4. (Previously Presented) The decorative item as claimed in claim 1, wherein the hard coating and the basis material at its surface exhibit respective tones which are different from each other.

5. (Canceled)

6. (Previously Presented) The decorative item as claimed in claim 1, wherein the hard coating is constituted of a nitride, carbide, oxide, nitrido-carbide or nitrido-carbido-oxide of an element belonging to Group 4a, 5a or 6a of the periodic table.

7. (Previously Presented) The decorative item as claimed in claim 1, wherein the hard coating is a hard coating of carbon.

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8. (Previously Presented) The decorative item as claimed in claim 7, further comprising an intermediate layer disposed between the hard coating of carbon and a surface of the carburized hardened layer of the basis material.

9. (Previously Presented) The decorative item as claimed in claim 8, wherein the intermediate layer comprises a lower layer of Ti or Cr disposed on the carburized hardened layer surface of the basis material and an upper layer of Si or Ge disposed on a surface of the lower layer.

10. (Previously Presented) The decorative item as claimed in claim 1, wherein at least two hard coatings are formed on the carburized hardened layer surface of the basis material.

11. (Previously Presented) The decorative item as claimed in claim 1, wherein at least two hard coatings are laminated on the carburized hardened layer surface of the basis material.

12. (Previously Presented) The decorative item as claimed in claim 1, wherein the hard coating is disposed on portion of the carburized hardened layer surface of the basis material.

13. (Previously Presented) The decorative item as claimed in claim 1, wherein the hard coating is disposed on portion of the hardened layer surface of the basis material.

14. (Original) The decorative item as claimed in claim 13, wherein the gold alloy coating is constituted of an alloy of gold and at least one metal selected from the group consisting of Al, Si, V, Cr, Ti, Fe, Co, Ni, Cu, Zn, Ge, Y, Zr, Nb, Mo, Ru, Rh, Pd, Ag, Cd, In, Sn, Hf, Ta, W, Ir and Pt.

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15. (Previously Presented) The decorative item as claimed in claim 1, which is an exterior part of timepiece.

16. (Previously Presented) A process for producing a decorative item, comprising the steps of:

providing a basis material of stainless steel,

carburizing a surface of the basis material in a carburizing gas atmosphere containing carbon monoxide at 400 to 500°C to form a carburized hardened layer extending from the surface of the basis material to an arbitrary depth wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbide is not formed; and

forming at least one hard coating on a surface of the carburized hardened layer of the basis material,

wherein the hard coating has a surface hardness greater than that of the carburized layer.

17. (Canceled)

18. (Currently Amended) The process as claimed in claim 16, wherein the decorative item is an exterior part of timepiece of a timepiece.

19. (Currently Amended) An exterior part of timepiece of a timepiece, comprising a stainless steel having at its surface a carburized layer wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbide is not formed,

wherein the carburized layer has a specular surface obtained by removing rough faces formed on the outermost surface thereof and polishing, and having a Vickers hardness (HV) of 500 or more.

20. (Canceled)

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21. (Currently Amended) An exterior part of timepiece of a timepiece, comprising a stainless steel having at its surface a carburized layer wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbide is not formed,

wherein the carburized layer has a machined surface.

22. (Original) The exterior part of timepiece as claimed in claim 21, wherein the machined surface has a Vickers hardness (HV) of 500 or more.

23. (Canceled)

24. (Previously Presented) A wristwatch band comprising a plurality of band pieces of stainless steel connected to each other,

each of the band pieces having at its surface a carburized layer wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbide is not formed,

wherein the carburized layer has a specular surface obtained by removing rough faces formed on the outermost surface thereof and polishing, and having a Vickers hardness (HV) of 500 or more.

25. (Previously Presented) A wristwatch band comprising a plurality of band pieces of stainless steel connected to each other,

each of the band pieces having at its surface a carburized layer wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbide is not formed,

wherein the carburized layer has a machined surface.

26. (Previously Presented) The wristwatch band as claimed in claim 24, wherein the band pieces are connected to each other by means of connecting parts of stainless steel,

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each of the connecting parts having on at least a portion of its surface a carburized layer wherein carbon is diffused so as to form a solid solution.

27. (Previously Presented) The wristwatch band as claimed in claim 24, produced by connecting the band pieces to each other by means of connecting parts, carburizing the band pieces and the connecting parts, and thereafter polishing surfaces of the band pieces.

28. (Original) The wristwatch band as claimed in claim 27, which further comprises connecting parts having no carburized layer.

29. (Previously Presented) A process for producing a wristwatch band, comprising the steps of:

connecting a plurality of band pieces of stainless steel to each other by means of a plurality of connecting parts of stainless steel;

fluorinating the band pieces and the connecting parts in a fluorogas atmosphere at 400 to 500°C;

gas carburizing the fluorinated band pieces and connecting parts in a carburizing gas atmosphere containing carbon monoxide at 400 to 500°C to form a carburized hardened layer extending from the surface of the fluorinated band pieces and connecting parts to an arbitrary depth wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbides is not formed;

pickling the carburized band pieces and connecting parts, followed by rinsing; and

subjecting surfaces of the band pieces to barrel polishing.

30. (Original) The process as claimed in claim 29, which further comprises buffing the band piece surfaces having undergone barrel polishing.

31. (Previously Presented) The process as claimed in claim 29, which further comprises machining surfaces of the band pieces connected by means of the

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connecting parts prior to the fluorination to obtain a wristwatch band having machined surfaces.

32. (Previously Presented) A process for producing a wristwatch band, comprising the steps of:

fluorinating a plurality of band pieces of stainless steel and a plurality of connecting parts of stainless steel in a fluorogas atmosphere at 250 to 600°C;

gas carburizing the fluorinated band pieces and connecting parts in a carburizing gas atmosphere containing carbon monoxide at 400 to 500°C to form a carburized hardened layer extending from the surface of the fluorinated band pieces and connecting parts to an arbitrary depth wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbides is not formed;

pickling the carburized band pieces and connecting parts, followed by rinsing; subjecting surfaces of the band pieces to barrel polishing; and connecting the band pieces by means of the connecting parts.

33. (Original) The process as claimed in claim 32, which further comprises buffing the band piece surfaces having undergone barrel polishing.

34. (Previously Presented) The process as claimed in claim 32, which further comprises machining surfaces of the plurality of band pieces prior to the fluorination to obtain a wristwatch band having machined surfaces.

35. (Currently Amended) A process for producing an exterior part of timepiece of a timepiece other than a wristwatch band, comprising the steps of:

connecting a plurality of pieces of stainless steel to each other by means of a plurality of connecting parts of stainless steel to obtain a base material for a timepiece exterior part of stainless steel other than a wristwatch band; fluorinating the base material in a fluorogas atmosphere at 250 to 600°C;

gas carburizing the fluorinated base material in a carburizing gas atmosphere containing carbon monoxide at 400 to 500°C to form a carburized

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hardened layer extending from the surface of the fluorinated base material to an arbitrary depth wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbides is not formed;

pickling the carburized base material, followed by rinsing; and
subjecting surfaces of the base material to barrel polishing.

36. (Original) The process as claimed in claim 35, which further comprises buffing the base material surfaces having undergone barrel polishing.

37. (Previously Presented) The process as claimed in claim 35, which further comprises machining surfaces of the base material prior to the fluorination to obtain an exterior part of timepiece other than wristwatch band having machined surfaces.

Claims 38-60 (Cancelled)

61. (Previously Presented) The exterior part of timepiece as claimed in claim 22, which is one produced by machining a surface of an exterior part of timepiece and thereafter carburizing the machined surface.

62. (Previously Presented) The wristwatch band as claimed in claim 25, wherein the band pieces are connected to each other by means of connecting parts of stainless steel,

each of the connecting parts having at least a portion of its surface a carburized layer wherein carbon is diffused so as to form a solid solution.

63. (Previously Presented) The wristwatch band as claimed in claim 25, produced by connecting the band pieces to each other by means of connecting parts, carburizing the band pieces and the connecting parts, and thereafter polishing surfaces of the band pieces.

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64. (Previously Presented) The process as claimed in claim 30, which further comprises machining surfaces of the band pieces connected by means of the connecting parts prior to the fluorination to obtain a wristwatch band having machined surfaces.

65. (Previously Presented) The process as claimed in claim 33, which further comprises machining surfaces of the plurality of band pieces prior to the fluorination to obtain a wristwatch band having machined surfaces.

66. (Previously Presented) The process as claimed in claim 36, which further comprises machining surfaces of the base material prior to the fluorination to obtain an exterior part of timepiece other than wristwatch band having machined surfaces.

Claims 67-69 (Canceled)

70. (Previously Presented) The decorative item as claimed in claim 1, wherein the stainless steel is an austenitic stainless steel.

71. (Previously Presented) The decorative item as claimed in claim 1, wherein the carburized hardened layer has a specular surface.

72. (Previously Presented) The decorative item as claimed in claim 1, wherein the hard coating is formed by dry plating.

73. (Previously Presented) The exterior part of a timepiece as claimed in claim 19, wherein a region of the carburized layer extending from the surface thereof has a depth of from 1 to 2 μm .

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74. (Currently Amended) An exterior part of timepiece of a timepiece, comprising a stainless steel having at its surface a carburized layer wherein carbon is diffused so as to form a solid solution in which crystalline chromium carbide is not formed,

wherein a machined surface formed before carburization is provided on the carburized layer surface.

75. (Currently Amended) The exterior part of timepiece of a timepiece as claimed in claim 21, wherein the machined surface is a hairline surface or a honing surface.

76. (Currently Amended) The exterior part of timepiece of a timepiece as claimed in claim 62, wherein the machined surface is a hairline surface or a honing surface.

77. (Previously Presented) The wristwatch band as claimed in claim 25, produced by connecting the band pieces to each other by means of connecting parts, carburizing the band pieces and the connecting parts, and thereafter polishing surfaces of the band pieces.

78. (Previously Presented) The wristwatch band as claimed in claim 25, wherein the band pieces are connected to each other by means of connecting parts of stainless steel,

each of the connecting parts having on at least a portion of its surface a carburized layer wherein carbon is diffused so as to form a solid solution.